Saskatchewan
Agriculture
and Food

FINANCIAL AND PRODUCTION TARGETS FOR SHEEP PRODUCERS

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Foreword

Farm management is the process of setting goals (both production and financial) for the farm business and then assessing how present production practices are meeting these goals. Often the problem is an absence of goals for the farm manager to strive towards. In response to this the Workbook Series has been initiated to provide producers with a benchmark operation to which they can compare their actual operation. This will allow the producer to examine adjustments to their operation that will allow them to better achieve their goals.

The Workbook Series contains a benchmark operation that outlines the calculations needed to measure financial progress. Accompanying this is a workbook format to allow producers to work through the same process for their operation. This will not only provide a complete analysis of their operation, but also a chance to compare their operation to financial and production benchmarks for the industry.

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This publication and other Saskatchewan Agriculture and Food publications are on the Saskatchewan Agriculture and Food website at: http://www.agr.gov.sk.ca

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Introduction

This publication is intended to be used by producers who are:

1) interested in learning more about the economics and production aspects of a sheep enterprise as a potential farm enterprise; or

2) who are already in production and would like to compare their enterprise to industry production and financial guidelines in order to make management decisions.

This publication is intended to provide a format and a set of guidelines for determining costs of production for sheep farm flock, range flock and feedlot operations. The production costs included in these enterprise budgets are estimates based on information obtained from sheep producers in the province. While these figures were considered accurate at the time, they should only be used as a guideline when preparing your own sheep enterprise budget.

The budget estimates current production costs based on a number of assumptions clearly defined in the supporting pages. These assumptions were made based on management practices and facilities commonly recommended for use on these sizes of enterprises. The benchmark figures are calculated for a stand-alone enterprise rather than an enterprise that is part of a multi-enterprise farm unit. In a multi-enterprise farm operation the building and equipment investment and operating costs would be shared between enterprises and would be less than shown in the example in this workbook. Good management is assumed, namely, that balanced rations are fed, livestock are on a flock health program and handling facilities are up to date. Adjustments in cost figures will be necessary where individual flock productivity and performance levels differ from those listed.

The guidelines provided can be useful for comparison purposes. Comparison of costs at different levels of production can be made with other farms, your farm over time, or comparing the plan with the actual production at the end of the planning period.

The budget may be adjusted by putting your figures in the appropriate column. However, accurate, up-to-date production and financial records are essential for effective application of these guidelines to an individual operation. Sheep producers are encouraged to determine their own production costs based on inputs, pasture program and management systems.

Pages 13, 26 and 38 provide a summary of the costs and revenue for each type of enterprise. In each summary the required breakeven lamb price to cover cash operating costs, operating costs and fixed costs and all costs are provided. For all three enterprises the breakeven lamb price required to cover all costs is above the expected lamb price used in the budgets. It is important to recognize that all costs include a 4% return to the land, 6% return to buildings, equipment, and breeding stock, and a charge for operator management and labour. It is also important to note that these assets were valued at market value rather

than their original cost. Given the economic environment in agriculture many types of farm operations are not able to cover all costs of production. As a result, it is important for producers to use their own figures to evaluate various production alternatives to generate the greatest return from their available resource.

Table 1: Estimated Breakeven Prices for Sheep Enterprises

PRICE REQUIRED TO COVER:	FEEDER LAMB PRICE FOR 300 EWE RANGE FLOCK (80 LBS)	SLAUGHTER LAMB PRICE FOR 100 EWE FARM FLOCK (115 LBS)	SLAUGHTER LAMB PRICE FOR 3500 HD FEEDLOT (115 LBS)
Cash Operating Costs	$0.51/lbs	$0.61/lbs	$0.93/lbs
Operating & Fixed Costs	$0.91/lbs	$0.94/lbs	$0.94/lbs
All Costs	$1.12/lbs	$1.07/lbs	$0.96/lbs

than their original cost. Given the economic environment in agriculture many types of farm operations are not able to cover all costs of production. As a result, it is important for producers to use their own figures to evaluate various production alternatives to generate the greatest return from their available resource.

Table 1: Estimated Breakeven Prices for Sheep Enterprises

PRICE REQUIRED TO COVER:	FEEDER LAMB PRICE FOR 300 EWE RANGE FLOCK (80 LBS)	SLAUGHTER LAMB PRICE FOR 100 EWE FARM FLOCK (115 LBS)	SLAUGHTER LAMB PRICE FOR 2500 HD FEEDLOT (115 LBS)
Cash Operating Costs	$0.51/lbs	$0.61/lbs	$0.93/lbs
Operating & Fixed Costs	$0.91/lbs	$0.94/lbs	$0.94/lbs
All Costs	$1.12/lbs	$1.07/lbs	$0.96/lbs

+9 ~~FO~~

Range Flock Operation (300 ewes)

Assumptions

1. Buildings and equipment are valued at market value.
2. All feed is valued at market value.
3. Manure removal is contracted out.
4. 15% of ewe lambs are retained for replacements.
5. Average productive life of ewe is 7 yrs.
6. Average productive life of ram is 3 yrs.
7. On average 1 ram is required per 40 ewes. Ram:ewe ratios vary with age. Younger rams may only be placed with 20 ewes where older rams may be placed with 50 or more.
8. Ewes are pastured on 640 acres year round with supplemental feeding from Nov1 to May1.
9. After lambing ewes and lambs are turned out into pasture with no supplemental feeding.
10. When lambs reach market weight they are removed from pasture and sold.

Range Flock Profile

	Total		Your Farm
Number of Ewes	300		_____
Number of Rams	8		_____
Lamb Crop (born alive)	150	%	_____
Ewe Mortality Rate (%)	2	%	_____
Ewe Cull Rate (%)	13	%	_____
Lamb Weaning Rate (%)	135	%	_____
Lamb post-weaning Mortality Rate (%)	2	%	_____
Lambs Marketed*	352		_____
Average Feeder Lamb Market Weight (lbs.)	80	lbs.	_____
Average Finish Lamb Market Weight (lbs.)	115	lbs.	_____

- *Lambs marketed is equal to the number of lambs weaned less post-weaning mortality and lambs retained for replacements.
- For this scenario all lambs marketed are sold as 80 lbs. feeders

Capital Investment

		Your Farm
Buildings:		
Barn and Handling Facilities	$15,000	_____
Well and Watering Bowls	5,000	_____
Total Building Cost	**$20,000**	

Machinery & Equipment:		**Your Farm**
Tractor & Loader (enterprise share)	$15,000	
Truck (enterprise share)	$ 7,500	
Miscellaneous Equipment: Wagon, Misc. Tools	$ 1,500	
Total Machinery Investment	**$24,000**	

Land/Pasture*:		
640 acres @ $125/ac	$80,000	
Fence 6 miles @ $2500/mile	$15,000	
Total land/pasture investment	**$95,000**	

* Water development is assumed to be existing and/or included with the water development costs of the buildings and facilities.

Breeding Flock:		
Value Ewes[+] (300 x $150)	$45,000	
Value Rams[++] (8 x $600)	4,800	
Total Breeding Flock Investment	**$49,800**	

[+] Value of breeding ewes can vary from $100/hd to over $300/hd depending on breed and quality.

[++]Value of breeding rams can vary from $200/hd to over $1000/hd depending on breed and quality.

Total Capital Investment	**$188,800**	

Operating Costs

1.1 Ewe Feed Cost

- **Flushing and Pre-lambing Ration**

Grain

	60	days/year	x	
x	1	lbs. barley/ewe/day	x	
x	$ 2	/bu barley (48 lbs/bu)	x	
	$ 2.50	**/ewe/year (a1)**	=	

Forage				**Your Farm**
	60	days/year	x	_____
x	5	lbs. alfalfa brome hay/ewe/day	x	_____
x	$ 50	/tonne[1] alfalfa brome hay	x	_____
	$ 6.80	**/ewe/year (a2)**	=	

- **Maintenance Ration**

Forage				
	120	days/year	x	_____
x	5	lbs. alfalfa brome hay/ewe/day	x	_____
x	$ 50	/tonne[1] alfalfa brome hay	x	_____
	$ 13.61	**/ewe/year (a3)**	=	

Total Ewe Feed Cost (a1+a2+a3) x # of Ewes	**$ 6873**	**/year**	=	_____

1.2 Ram Feed Cost

- **Ram Ration**

Forage				
	180	days/year	x	_____
x	6	lbs. alfalfa brome hay/ram/day	x	_____
x	$ 50	/tonne[1] alfalfa brome hay	x	_____
=	$ 24.49	/ram **(b1)**	=	

Total Ram Feed Cost (b1 x # of rams)	**$ 196**	**/year**	=	_____

1.3 Salt and Mineral

Salt-mineral Mix - Ewes				
	10	lbs. salt-mineral*/year	x	_____
x	$ 0.30	/lbs.	x	_____
x	300	# of ewes	=	_____
	$ 900	**ewe cost/year (c1)**	=	

[1] To convert $/tonne to $/lbs divide $/tonne by 2204.
In this case the cost/lbs of forage is $50/t ÷ 2204.6 = $0.022/lbs

Salt-mineral Mix - Rams				**Your Farm**
	10	lbs. salt-mineral*/year	x	
x	$ 0.30	/lbs	x	
x	8	# of rams	x	
=	**$ 24**	**ram cost/year (c2)**	=	

Total Salt and Mineral Mix Cost (c1+c2)	**$924**	**/year**	=

*Salt and minerals are a 60% - 40% blend of 1:1 sheep mineral and cobaltized loose salt offered free choice.

2. Straw

Ewes

	71	lbs./ewe/year	x	
x	$ 15	/tonne[2]	x	
x	300	# of ewes	x	
	$ 145	**/year (d1)**	=	

Rams

	71	lbs./ewe/year	x	
x	$ 15	/tonne	x	
x	8	# of rams	x	
	$ 3.81	**/year (d2)**	=	

Total Straw Cost (d1+d2)	**$149**	**/year**	=

- Straw is used for bedding during lambing and near shearing season.

[2] To convert $/tonne to $/lbs divide $/tonne by 2204.
In this case the cost/lbs of straw is $15/t ÷ 2204.6 = $0.0068/lbs

3. Veterinary, Medicine and Supplies

Your Farm

Lamb Medication

+	$ 1.00	/hd		
x	405	lambs weaned	x	
	$405	**lamb cost/year (e1)**	=	

Ewe and Ram Medication

x	$ 4.00	/hd		
x	308	ewes and rams	x	
	$ 1,232	**ewe and ram cost/year (e2)**	=	

Total Vet and Med Cost (e1+e2)	**$1,637**	**/year**	=	

4. Maintenance, Repairs and Fuel

Equipment, Buildings and Fence Repairs

	$ 500	equipment/year		
+	$1,000	fence repair/year	+	
+	$ 100	building repair/year	+	
	$1,600	**total/yr (f1)**	=	

Truck and Tractor fuel costs

	$ 500	tractor fuel consumption/year		
+	$ 500	truck fuel consumption/year		
=	**$ 1,000**	**/year (f2)**	=	

Total Maintenance, Repairs and Fuel (f1+f2)	**$2,600**	**/year**	=	

5. Utilities

	$ 100	power		
+	$ 250	telephone	+	
=	**$ 350**	**Total**	=	

6. Manure Removal				**Your Farm**
	$ 450	**/year**		_____
7. Insurance				
	$ 250	**Building and equip. insurance cost/year**		_____
8. Ram Replacement				
	8	rams		_____
÷	4	years of service	÷	_____
	2	rams replaced/year	=	
	$600	replacement ram value		_____
x	2	rams replaced/year	x	_____
	$ 1,200	**avg. annual ram replacement cost**	=	
9. Office Supplies and Accounting				
	$200	**/year**		_____
10. Marketing Costs				
	$ 1	/sheep marketed		_____
x	393	sheep marketed*	x	_____
	$ 393	**/year**	=	

*Sheep marketed is equal to lambs marketed plus culled breeding stock

11. Predator Control Dog

				Your Farm
	3	# of dogs		
+	5	years of service	+	
	.6	dogs replaced/year	=	
	$250	replacement cost		
-	$100	rebate	-	
x	.6	dogs replaced/year	x	
=	**$ 90**	**dog replacement cost/year (g1)**	=	
	$200	dog food cost/dog/year		
x	3	# of dogs	+	
	$ 600	**/year (g2)**	=	
Total Predator Control Dog Cost (g1 +g2)	**$690**	**/year**	=	

12. Property Tax

	$ 1920	/year -640 ac @ $3/ac	

13. Financing Costs (operating)

Operating Loan

Operating interest is charged one third of the total operating costs.

	$17,832	subtotal operating costs		
x	.33		x	
x	9	% operating interest rate	x	
	$ 530	**/year**	=	

Non-Cash Fixed Costs

1. Depreciation

Straight-line method of depreciation is used:

$$Depreciation = \frac{\text{Purchase Price - Salvage Value}}{\text{Years of useful life}}$$

Buildings and Facilities

				Your Farm
	$20,000	value		
-	$1,000	5% salvage value	-	
÷	20	years of useful life	÷	
	$ 1,000	**/year (h1)**	=	

Machinery & Equipment

	$ 24,000	original value		
-	$2,400	10% salvage value	-	
÷	12	years of useful life	÷	
	$ 1,800	**/year (h2)**	=	

Total Depreciation (h1+h2)	**$ 2,800**	**/year**	=	

2. Investment Cost

Investment Cost on depreciable assets is calculated:

$$\frac{Original\ Value + Salvage\ Value}{2} \times Interest\ Rate$$

Buildings

	$20,000	beginning value		
+	$1,000	5% salvage value	+	
÷	2		÷	2
x	6	% investment interest rate	x	
	$ 630	**/year (I1)**	=	

Machinery and Equipment				**Your Farm**
	$ 24,000	beginning value		
+	$ 2,400	10% salvage value	+	
÷	2		÷	2
x	6	% investment interest rate	x	
	$ 792	**/year (I2)**	=	

Investment cost on non-depreciable assets is calculated:

Investment cost = market value x interest rate

Land/Pasture				
	$95,000	market value of land and pasture		
x	4	% investment interest rate	x	
	$ 3,800	**/year (I3)**	=	

Breeding Flock				
	$ 49,800	average market value		
x	6	% investment interest rate	x	
	$ 2,988	**/year (I4)**	=	

Total Investment Cost (I1+I2+I3+I4)	**$8,210**	**/year**	=	

3. Operator Management and Labour

	2	hours/ewe		
x	300	# of ewes	x	
x	$ 10	/hour	x	
	$ 6,000	**/year**	=	

Income

					Your Farm
1.	**Wool**				
		300	number of ewes	x	
	+	8	number of rams	+	
		308	**total breeding animals (j1)**	=	
		$ 2.00	shearing cost/head		
		.25	packing cost/head	+	
	+	.17	bag cost/head	+	
		$2.42	**total shearing cost/head (j2)**	=	
		$ 0.75	value of wool/lbs.		
	x	10	lbs. wool/animal	x	
		$ 7.50	**value of wool/head (j3)**	=	
		$5.08	net wool value/head (j3 - j2)		
	x	308	total breeding animals (j1)	x	
		$1,565	**Total wool sales/year (k1)**		
2.	**Feeder Lamb Sales**				
		352	feeder lambs marketed		
	x	80	lbs. average weight	x	
	x	$1	/lbs. sale price	x	
	=	**$ 28,160**	**lambs sales/year (k2)**	=	
3.	**Cull Ewe Sales**				
		38	cull ewes		
	x	180	lbs. average weight	x	
	x	$ 0.30	/lbs. sale price	x	
	=	**$ 2,052**	**cull ewe sales/year (k3)**	=	
4.	**Cull Ram Sales**				
		2	cull rams		
	x	300	lbs. average weight	x	
	x	$0.35	/lbs. sale price	x	
	=	**$ 216**	**cull ram sales/year (k4)**	=	
Total sheep sales (k1+k2+k3+k4)		**$ 31,993**	**/year**	=	

Summary of Income and Expenses for a Range Flock Enterprise

Estimates are based on a flock of 300 ewes producing 352 market lambs per year.

		$/Year	$/Ewe/Yr	Your Farm
Income				
1	Wool Sales	$ 1,565	$ 5.22	
2	Feeder Lamb Sales	$28,160	$ 93.87	
3	Cull Ewe Sales	$ 2,052	$ 6.84	
4	Cull Ram Sales	$ 216	$ 0.72	
Total Income		**$31,993**	**$106.65**	
Operating Costs				
1.1	Ewe Feed Cost	$ 6,873	$ 22.91	
1.2	Ram Feed Cost	$ 196	$ 0.65	
1.3	Lamb Feed Cost	0	0	
1.4	Salt and Mineral Mix	$ 924	$ 3.08	
Total Feed Cost		**$ 7,993**	**$26.64**	
2	Straw	$ 149	$ 0.50	
3	Vet, Medicine and Supplies	$ 1,637	$ 5.46	
4	Maintenance and Repairs	$ 2,600	$ 8.67	
5	Utilities	$ 350	$ 1.17	
6	Manure Removal	$ 450	$ 1.50	
7	Insurance	$ 250	$ 0.83	
8	Ram Replacement	$ 1,200	$ 4.00	
9	Office Supplies and Accounting	$ 200	$ 0.67	
10	Marketing Costs	$ 393	$ 1.31	
11	Predator Control Dog	$ 690	$ 2.30	
12	Property Taxes	$ 1,920	$ 6.40	
Subtotal Operating Costs		**$17,832**	**$59.45**	
13	Operating Interest	$ 530	$ 1.77	
Total Operating Costs		**$18,362**	**$ 61.21**	
Non-Cash Fixed Costs				
1	Depreciation	$ 2,800	$ 9.33	
2	Investment Cost	$ 8,210	$ 27.37	
Total Fixed Costs		**$11,010**	**$ 36.70**	
Total Operating and Fixed Costs		**$29,372**	**$97.91**	
3	Operator Management & Labour	$6,000	$ 20.00	
Total Cost of Production		**$35,372**	**$ 117.91**	
Net Return		**-$ 3,379**	**-$ 11.26**	
Breakeven Lamb Price required to cover:			**$/lb**	
Operating Cost			$ 0.51	
Operating and Fixed Cost			$ 0.91	
Operating, Fixed Cost and Labour			$ 1.12	

Farm Flock Operation (100 ewes)

Assumptions

1. Buildings and equipment are valued at market value.
2. All feed is valued at market value.
3. Manure removal is contracted out.
4. 15% of ewe lambs are retained for replacements
5. Average productive life of ewe is 7 yrs.
6. Average productive life of ram is 4 yrs.
7. On average 1 ram is required per 40 ewes. Ram:ewe ratios vary with age. Younger rams may only be placed with 20 ewes where older rams may be placed with 50 or more.
8. Ewes are pastured on 80 acres for 180 days after lambs have been weaned.
9. Lambs are removed from ewes at 2 months of age and fed to a finished weight of 115 lbs.

Farm Flock Profile

	Total		Your Farm
Number of Ewes	100		_____
Number of Rams	3		_____
Lamb Crop (born alive)	160	%	_____
Ewe Mortality Rate (%)	2	%	_____
Ewe Cull Rate (%)	13	%	_____
Lamb Weaning Rate (%)	155	%	_____
Lamb post-weaning Mortality Rate (%)	2	%	_____
Lambs Marketed*	137		_____
Average Feeder Lamb Market Weight (lbs.)	80	lbs.	_____
Average Finish Lamb Market Weight (lbs.)	115	lbs.	_____

- *Lambs marketed is equal to the number of lambs weaned less post-weaning mortality and lambs retained for replacements.
- For this scenario lambs marketed are sold as finished lambs at an average weight of 115 lbs.

Capital Investment

		Your Farm
Buildings:		
Barn and Handling Facilities	$10,000	_____
Well and Watering Bowls	5,000	_____
Total Building Cost	**$15,000**	

Machinery & Equipment:		**Your Farm**
Tractor & Loader (enterprise share)	$15,000	_____
Truck (enterprise share)	$ 7,500	_____
Miscellaneous Equipment: Wagon, Misc. Tools	$ 1,500	_____
Total Machinery Investment	**$24,000**	

Land/Pasture*:		
80 acres @ $125/ac	$10,000	_____
Fence 1.5 miles @ $2500/mile	$ 3,750	_____
Total land/pasture investment	**$13,750**	

* Water development is assumed to be existing and/or included with the water development costs of the buildings and facilities.

Breeding Flock:		
Value Ewes[+] (100 x $150)	$15,000	_____
Value Rams[++] (3 x $300)	$ 900	_____
Total Breeding Flock Investment	**$15,900**	

[+] Value of breeding ewes can vary from $100/hd to over $300/hd depending on breed and quality.

[++] Value of breeding rams can vary from $200/hd to over $1000/hd depending on breed and quality.

Total Capital Investment	**$68,650**	_____

Operating Costs

1.1 Ewe Feed Cost

- **Flushing and Pre-lambing Ration**

Grain

	60	days/year		_____
x	1	lbs. barley/ewe/day	x	_____
x	$2	/bu barley (48 lbs/bu)	x	_____
	$ 2.50	**/ewe/year (a1)**	=	

					Your Farm
Forage					
		60	days/year		
	x	5	lbs. alfalfa brome hay/ewe/day	x	
	x	$ 50	/tonne[1] alfalfa brome hay	x	
		$ 6.80	**/ewe/year (a2)**	=	

- **Lactation Ration**

Grain					
		60	days/year		
	x	2	lbs. barley/ewe/day	x	
	x	$2	/bu barley (48 lbs/bu)	x	
		$ 5.00	**/ewe/year (a3)**	=	
Forage					
		60	days/year		
	x	5	lbs. alfalfa brome hay/ewe/day	x	
	x	$ 50	/tonne[1] alfalfa brome hay	x	
		$ 6.80	**/ewe/year (a4)**	=	

- **Maintenance Ration**

Grain					
		65	days/year		
	x	.5	lbs. barley/ewe/day	x	
	x	$2	/bu barley (48 lbs/bu)	x	
		$ 1.35	**/ewe/year (a5)**	=	
Forage					
		65	days/year		
	x	5	lbs. alfalfa brome hay/ewe/day	x	
	x	$ 50	/tonne[1] alfalfa brome hay	x	
		$ 7.37	**/ewe/year (a6)**	=	

Total Ewe Feed Cost **$ 2,982** **/year** =

(a1+a2+a3+a4+a5+a6) x # of Ewes

[1] To convert $/tonne to $/lbs divide $/tonne by 2204.6
In this case the cost/lbs of forage is $50/t ÷ 2204.6 = $0.022/lbs

1.2 Ram Feed Cost

					Your Farm
• **Ram Ration**					
Grain					
		60	days/year		
	x	.75	lbs. barley/ram/day	x	
	x	$2	/bu	x	
		$ 1.88	**/ram/year (b1)**	=	
Forage					
		365	days/year		
	x	6	lbs. alfalfa brome hay/ram/day	x	
	x	$ 50	/tonne[1] alfalfa brome hay	x	
	=	**$ 49.67**	**/ram/year (b2)**	=	
Total Ram Feed Cost (b1+b2) x # of rams		**$ 155**	**/year**	=	

1.3 Lamb Feed Cost

• **Creep Ration**					
Grain					
		50	days/year		
	x	0.5	lbs. barley/lamb/day	x	
	x	$2	/bu barley (48 lbs/bu)	x	
		$ 1.04	**/lamb/year (c1)**	=	
Forage					
		50	days/year		
	x	0.5	lbs. alfalfa brome hay/ewe/day	x	
	x	$ 50	/tonne[1] alfalfa brome hay	x	
		$ 0.57	**/lamb/year (c2)**	=	
• **Weaning Ration**					
Grain					
		30	days/year		
	x	1	lbs. barley/lamb/day	x	
	x	$2	/bu barley (48 lbs/bu)	x	
		$ 1.25	**/lamb/year (c3)**	=	

					Your Farm
Forage					
		30	days/year		_____
	x	2	lbs. alfalfa brome hay/ewe/day	x	_____
	x	$ 50	/tonne[1] alfalfa brome hay	x	_____
		$ 1.36	**/lamb/year (c4)**	=	

- **Feeder Ration**

Grain					
		120	days/year		_____
	x	2.5	lbs. barley/lamb/day	x	_____
	x	$2	/bu barley (48 lbs/bu)	x	_____
		$ 12.50	**/lamb/year (c5)**	=	
Forage					
		120	days/year		_____
	x	2.5	lbs. alfalfa brome hay/ewe/day	x	_____
	x	$ 50	/tonne[1] alfalfa brome hay	x	_____
		$ 6.80	**/lamb/year (c6)**	=	
Total lamb feed costs		**$ 3,645**	**/year**	=	_____

(c1+c2+c3+c4+c5+c6) x # of lambs weaned

1.4 Salt and Mineral

Salt-mineral Mix - Ewes					
		10	lbs. salt-mineral*/ewe/year		_____
	x	$ 0.30	/lbs.	x	_____
	x	100	# of ewes	=	_____
		$ 300	**ewe cost/year (d1)**	=	
Salt-mineral Mix - Rams					
		10	lbs. salt-mineral*/ram/year		_____
	x	$ 0.30	/lbs	x	_____
	x	3	# of rams	x	_____
	=	**$ 9**	**ram cost/year (d2)**	=	

Salt-mineral Mix - Lambs				**Your Farm**
	5	lbs. salt-mineral*/ram/year		
x	$ 0.30	/lbs	x	
x	155	# of lambs	x	
=	**$ 233**	**lamb cost/year (d3)**	=	
Total Salt and Mineral Mix Cost (d1+d2+d3)	**$542**	**/year**	=	

*Salt and minerals are a 60% - 40% blend of 1:1 sheep mineral and cobaltized loose salt.

2. Straw

Ewes

	70	lbs/ewe/year	
x	$ 15	/tonne[2]	x
x	100	# of ewes	x
	$ 48	**/year (e1)**	=

Rams

	70	lbs/ram/year	
x	$ 15	/tonne	x
x	3	# of rams	x
	$ 1.43	**/year (e2)**	=

Total Straw Cost (e1+e2)	**$ 49**	**/year**	=	

Straw is used for bedding during lambing and near shearing season

3. Veterinary, Medicine and Supplies

Lamb Medication

	$ 1.00	/hd	
x	155	lambs weaned	x
	$155	**lamb cost/year (f1)**	=

[2] To convert $/tonne to $/lbs divide $/tonne by 2204.6
In this case the cost/lbs of forage is $15/t ÷ 2204.6 = $0.0068/lbs

				Your Farm
Ewe and Ram Medication				
	$ 4.00	/hd		
x	103	ewes and rams	x	
	$ 412	**ewe and ram cost/year (f2)**	=	
Total Vet and Med Cost (f1+f2)	**$567**	**/year**	=	

4. Maintenance, Repairs and Fuel

Equipment, Buildings and Fence Repairs

	$ 300	equipment/year		
+	$ 200	fence repair/year	+	
+	$ 100	building repair/year	+	
	$ 600	**total/yr (g1)**	=	

Truck and Tractor fuel costs

	$ 200	tractor fuel consumption/year		
+	$ 100	truck fuel consumption/year		
=	**$ 300**	**/year (g2)**	=	
Total Maintenance, Repairs and Fuel (g1+g2)	**$900**	**/year**	=	

5. Utilities

	$ 100	power		
+	$ 250	telephone	+	
=	**$ 350**	**Total**	=	

6. Manure Removal

	$ 250	**Total cost/year**	

7. Insurance

	$ 100	**Building and equip. insurance cost/year**	

8. Ram Replacement **Your Farm**

	3	rams		_____
÷	4	years of service	÷	_____
	.75	rams replaced/year	=	
	$300	replacement ram value		_____
x	.75	rams replaced/year	x	_____
	$ 225	**avg. annual ram replacement cost**	=	

9. Office Supplies and Accounting

	$200	**total office expenses/year**	_____

10. Marketing Costs

	$ 1	/sheep marketed		_____
x	151	sheep marketed*	x	_____
	$ 151	**/year**	=	

*Sheep marketed is equal to lambs marketed plus culled breeding stock

11. Predator Control Dog

	1	# of dogs		_____
÷	5	years of service	÷	_____
	.20	dogs replaced/year	=	
	$250	replacement cost		_____
-	$100	rebate	-	_____
x	.20	dogs replaced/year	x	_____
=	**$ 30**	**dog replacement cost/year (h1)**	=	
	$200	dog food cost/dog/year		
x	1	# of dogs	÷	_____
	$ 200	**/year (h2)**	=	
Total Predator Control Dog Cost (h1 +h2)	**$230**	**/year**	=	_____

12. Property Tax

			Your Farm
	$ 240	/year -80 ac @ $3/ac	_____

13. Financing Costs (operating)

Operating Loan

Operating interest is charged one third of the total operating costs.

	$10,586	subtotal operating costs		_____
x	.33		x	_____
x	9	% operating interest rate	x	_____
	$ 314	**/year**	=	

Non-Cash Fixed Costs

1. Depreciation

Straight-line method of depreciation is used:

$$Depreciation = \frac{\text{Purchase Price - Salvage Value}}{\text{Years of useful life}}$$

Buildings and Facilities				Your Farm
	$15,000	value		_____
-	$750	5% salvage value	-	_____
÷	20	years of useful life	÷	_____
	$ 713	**/year (i1)**	=	

Machinery & Equipment				
	$ 24,000	original value		_____
-	$2,400	10% salvage value	-	_____
÷	12	years of useful life	÷	_____
	$ 1,800	**/year (i2)**	=	

Total Depreciation (i1+i2)	**$ 2,513**	**/year**	=	_____

2. Investment Cost

Your Farm

Investment Cost on depreciable assets is calculated:

$$\frac{Original\ Value + Salvage\ Value}{2} \times Interest\ Rate$$

Buildings

	$15,000	beginning value		_____
+	$750	5% salvage value	+	_____
÷	2		÷	2
x	6	% investment interest rate	x	_____
	$ 491	**/year (j1)**	=	

Machinery and Equipment

	$ 24,000	beginning value		_____
+	$ 2,400	10% salvage value	+	_____
÷	2		÷	2
x	6	% investment interest rate	x	_____
	$ 792	**/year (j2)**	=	

Investment cost on non-depreciable assets is calculated:

Investment cost = market value x interest rate

Land/Pasture

	$13,750	market value of land and pasture		_____
x	4	% investment interest rate	x	_____
	$ 550	**/year (j3)**	=	

Breeding Flock

	$ 15,900	average market value		_____
x	6	% investment interest rate	x	_____
	$ 954	**/year (j4)**	=	

Total Investment Cost **$ 2,787** **/year** = _____
(j1+j2+j3+j4)

3. Operator Labour and Management

				Your Farm
	3	hours/ewe		
x	100	# of ewes	x	
x	$ 10	/hour	x	
	$ 2,000	**/year**	=	

Income

1. Wool

	100	number of ewes		
+	3	number of rams	+	
	103	**total breeding animals (k1)**	=	
	$ 2.00	shearing cost/head		
	.25	packing cost/head	+	
+	.17	bag cost/head	+	
	$2.42	**total shearing cost/head (k2)**	=	
	$ 0.75	value of wool/lbs.		
x	10	lbs. wool/animal	x	
	$ 7.50	**value of wool/head (k3)**	=	
	$5.08	net wool value/head (k3 - k2)		
x	103	total breeding animals (k1)	x	
	$ 523	**Total wool sales/year (l1)**		

2. Finished Lamb Sales

	137	feeder lambs marketed		
x	115	lbs. average weight	x	
x	$0.95	/lbs. sale price	x	
=	**$ 14,967**	**lambs sales/year (l2)**	=	

3. Cull Ewe Sales

	13	cull ewes		
x	180	lbs. average weight	x	
x	$ 0.30	/lbs. sale price	x	
=	**$ 702**	**cull ewe sales/year (l3)**	=	

4. Cull Ram Sales					**Your Farm**
		1	cull rams		_____
	x	300	lbs. average weight	x	_____
	x	$0.35	/lbs. sale price	x	_____
	=	**$ 105**	**cull ram sales/year (l4)**	=	
Total sheep sales (l1+l2+l3+l4)		**$ 16,297**	**/year**	=	_____

Income and Expense Summary for a Farm Flock Enterprise

Estimates are based on a flock of 100 ewes producing 137 market lambs per year.

		$/Year	$/Ewe/Yr	Your Farm
Income				
1	Wool Sales	$ 523	$ 5.23	
2	Lamb Sales	$14,967	$149.67	
3	Cull Ewe Sales	$ 702	$ 7.02	
4	Cull Ram Sales	$ 105	$ 1.05	
Total Income		**$16,297**	**$162.97**	
Operating Costs				
1.1	Ewe Feed Cost	$ 2,982	$ 29.82	
1.2	Ram Feed Cost	$ 155	$ 1.55	
1.3	Lamb Feed Cost	$ 3,645	$ 36.45	
1.4	Salt and Mineral Mix	$ 542	$ 5.42	
Total Feed Cost		**$ 7,324**	**$ 73.24**	
2	Straw	$ 49	$ 0.49	
3	Vet, Medicine and Supplies	$ 567	$ 5.67	
4	Maintenance and Repairs	$ 900	$ 9.00	
5	Utilities	$ 350	$ 3.50	
6	Manure Removal	$ 250	$ 2.50	
7	Insurance	$ 100	$ 1.00	
8	Ram Replacement	$ 225	$ 2.25	
9	Office Supplies and Accounting	$ 200	$ 200	
10	Marketing Costs	$ 151	$ 1.51	
11	Predator Control Dog	$ 230	$ 2.30	
12	Property Taxes	$ 240	$ 2.40	
Subtotal Operating Costs		**$10,586**	**$105.86**	
13	Operating Interest	$ 314	$ 3.14	
Total Operating Costs		**$10,900**	**$ 109.00**	
Non -Cash Fixed Costs				
1	Depreciation	$ 2,513	$ 25.13	
2	Investment	$ 2,787	$ 27.87	
Total Fixed Costs		**$ 5,300**	**$ 53.00**	
Total Operating and Fixed Costs		**$16,200**	**$162.00**	
3	Labour	$2,000	$ 20.00	
Total Cost of Production		**$18,200**	**$182.00**	
Net Return		**-$ 1,903**	**-$ 19.03**	
Breakeven Lamb Price required to cover:			$/lb	
Operating Cost			$ 0.61	
Operating and Fixed Cost			$ 0.94	
Operating, Fixed Cost and Labour			$ 1.07	

Comparison 300 ewe Farm Flock vs 300 Ewe Range Flock

		Farm Flock	Range Flock	Your Farm
Income				
1	Wool Sales	$ 1,570	$ 1,565	
2	Lamb Sales[3]	$ 44,902	$ 28,160	
3	Cull Ewe Sales	$ 2,106	$ 2,052	
4	Cull Ram Sales	$ 210	$ 216	
Total Income		**$ 48,788**	**$ 31,993**	
Operating Costs				
1.1	Ewe Feed Cost	$ 8,946	$ 6,873	
1.2	Ram Feed Cost	$ 464	$ 196	
1.3	Lamb Feed Cost	$ 10,937	$ 0	
1.4	Salt and Mineral Mix	$ 1,625	$ 924	
Total Feed Cost		**$ 21,972**	**$ 7,993**	
2	Straw	$ 214	$ 149	
3	Vet, Medicine and Supplies	$ 1,701	$ 1,637	
4	Maintenance and Repairs	$ 2,300	$ 2,600	
5	Utilities	$ 350	$ 350	
6	Manure Removal	$ 450	$ 450	
7	Insurance	$ 250	$ 250	
8	Ram Replacement	$ 600	$ 1,200	
9	Office Supplies and Accounting	$ 200	$ 200	
10	Marketing Costs	$ 452	$ 393	
11	Predator Control Dog	$ 690	$ 690	
12	Property Taxes	$ 720	$ 1,920	
Subtotal Operating Costs		**$29,899**	**$17,832**	
13	Operating Interest	$ 888	$ 530	
Total Operating Costs		**$30,787**	**$18,362**	
Non -Cash Fixed Costs				
1	Depreciation	$ 2,988	$ 2,800	
2	Investment	$ 6,142	$ 8,210	
Total Fixed Costs		**$ 9,130**	**$11,010**	
Total Operating and Fixed Costs		**$39,917**	**$29,372**	
3	Labour	$ 8,000	$ 6,000	
Total Cost of Production		**$47,917**	**$35,372**	
Net Return		**$ 871**	**-$ 3,379**	
Breakeven Lamb Price required to cover:			**$/lb**	
Operating Cost		$ 0.57	$ 0.51	
Operating and Fixed Cost		$ 0.76	$ 0.91	
Operating, Fixed Cost and Labour		$ 0.93	$ 1.12	

[3] Lamb sales are 115 lbs finished lambs for the Farm Flock and 80 lbs feeder lambs for the Range Flock

Feedlot Operation (2500 lambs)

Assumptions

1. Buildings and equipment are valued at market value.
2. All feed is valued at market value.
3. Manure removal is contracted out.
4. Rate of gain for lambs is assumed to be 1/2 lb/day.
5. Lamb purchase and sales prices include transportation costs.
6. Maximum feedlot capacity at any one time is 2500 head, but inventory is turned 4 times/year resulting in a total of 10,000 lambs being fed per year.
7. 30 ft^2 of pen space is required per head.[4]
8. The facility design for the feedlot used in this scenario will consist of 5 pens 245 ft x 245 ft holding 500 lambs each plus a handling area with loading chute.

Feedlot Profile

	Total		Your Farm
Feedlot Capacity	2,500		_____
Number of turns per Year	4		_____
Lamb Mortality Rate (%)	4	%	_____
Lambs Marketed* per Year	9,600		_____
Average Feeder Lamb Weight Entering Feedlot (lbs.)	80	lbs.	_____
Average Price of Feeder Lamb Entering Feedlot ($/lbs.)	$1.05	/lbs.	_____
Average Finished Lamb Market Weight -Market 1	115	lbs.	_____
Average Finished Lamb Market Weight -Market 2	145	lbs.	_____
Average Finished Lamb Market Weight -Market 3	180	lbs.	_____

- *Lambs marketed per year is equal to the number of lambs entering feedlot less death loss.
- For this scenario all lambs marketed are sold at a finished weight of 115 lbs.

Capital Investment

Buildings:		Your Farm
Pens w/ Feed Bunks*	$25,000	_____
Handling Facilities	$ 7,500	_____
Grain Storage (8000 bu.)	$10,000	_____
Well and Watering Bowls	$ 5,000	_____
Total Building Cost	**$47,500**	

*Pen cost partially based on slab fencing cost of $5.60/ft

[4] Source: The Recommended Code of Practice for the Care and Handling of Sheep (1995)
Available at: http://www.carc-crac.ca/english/codes_of_practice/factsheets/SHEEP.htm

Machinery & Equipment:		**Your Farm**
Tractor w/ Loader (enterprise share)	$30,000	_____
Skid Steer	$10,000	_____
Grain Auger	$ 6,000	_____
Mixmill	$ 7,500	_____
Total Machinery Investment	**$53,500**	
Land:		
10 acres @ $200/ac	$ 2,000	_____
Land Improvement @ $100/ac	$ 1,000	_____
Total Land and Improvement Costs	**$3,000**	
Total Capital Investment	**$104,000**	_____

Operating Costs

1.1 Lamb Feed Costs

- **Feeder Ration - Market #1**

Grain

	70	days/turn		_____
x	3.5	lbs. barley/lamb/day	x	_____
x	$2	/bu barley (48 lbs/bu)	x	_____
	$ 10.21	**/lamb/turn (a1)**	=	

Forage

	70	days/turn		_____
x	2.5	lbs. alfalfa brome hay/ewe/day	x	_____
x	$ 50	/tonne[1] alfalfa brome hay	x	_____
	$ 3.97	**/lamb/turn (a2)**	=	
	$14.18	lamb feed costs/turn (a1+a2)		_____
x	10,000	number of lambs fed for this market	x	_____
=	**$ 141,800**	**Total Feed costs for market #1 (a3)**	=	

[1] To convert $/tonne to $/lbs divide $/tonne by 2204.6
In this case the cost/lbs of forage is $50/t ÷ 2204.6 = $0.022/lbs

- **Feeder Ration - Market #2**

				Your Farm
Grain				
	130	days/turn		
x	3.5	lbs. barley/lamb/day	x	
x	$2	/bu barley (48 lbs/bu)	x	
	$ 18.96	**/lamb/turn (a4)**	=	
Forage				
	130	days/turn		
x	2.5	lbs. alfalfa brome hay/ewe/day	x	
x	$ 50	/tonne[1] alfalfa brome hay	x	
	$ 7.37	**/lamb/turn (a5)**	=	
	$26.33	lamb feed costs/turn (a4+a5)		
x	0	number of lambs fed for this market	x	
=	**$ 0**	**Total Feed costs for market #2 (a6)**	=	

- **Feeder Ration - Market #3**

Grain				
	200	days/turn		
x	3.5	lbs. barley/lamb/day	x	
x	$2	/bu barley (48 lbs/bu)	x	
	$ 29.17	**/lamb/turn (a7)**	=	
Forage				
	200	days/turn		
x	2.5	lbs. alfalfa brome hay/ewe/day	x	
x	$ 50	/tonne[1] alfalfa brome hay	x	
	$ 11.34	**/lamb/turn (a8)**	=	
	$40.51	lamb feed costs/turn (a7+a8)		
x	0	number of lambs fed for this market	x	
=	**$ 0**	**Total Feed costs for market #1 (a9)**	=	

Total lamb feed costs (a3+a6+a9)	**$ 141,800**	**/year**	=	

1.2 Supplements

Premix* -Market #1

				Your Farm
	70	# of days/turn		_____
x	0.02	lbs./lamb/day	x	_____
x	$ 0.36	/lbs	x	_____
x	10,000	# of lambs/year	x	_____
=	**$ 5,040**	**/year - Market #1 (b1)**	=	

*Premix is a 32% protein, salt and mineral blend mixed and fed with grain.

Market #2

	130	# of days/turn		_____
x	0.02	lbs./lamb/day	x	_____
x	$ 0.36	/lbs	x	_____
x	0	# of lambs/year	x	_____
=	**$ 0**	**/year - Market #2 (b2)**	=	

Market #3

	200	# of days/turn		_____
x	0.02	lbs./lamb/day	x	_____
x	$ 0.36	/lbs	x	_____
x	0	# of lambs/year	x	_____
=	**$ 0**	**/year - Market #3 (b3)**	=	

Total Supplement Cost **$5,040** **/year** = _____
(b1+b2+b3)

3. Feeder Lamb Purchases

- **Market #1**

Lamb Cost

	10,000	# of head purchased		_____
x	80	avg. weight/hd.	x	_____
x	$1.05	/lbs	x	_____
=	**$ 840,000**	**Total Cost (c1)**	=	

					Your Farm
Financing Cost					
		$840,000	Total purchases (c1)		_____
	x	9	% annual finance rate	x	_____
	÷	365	days/year	÷	_____
	x	70	days/turn	x	_____
	=	**$14,499**	**interest cost/turn (c2)**	=	
Total Purchase Costs Market #1 (c1+c2)		**$ 854,499**	**/year (c3)**	=	_____

- **Market #2**

Lamb Cost					
		0	# of head purchased		_____
	x	80	avg. weight/hd.	x	_____
	x	$1.05	/lbs	x	_____
	=	**$ 0**	**Total Cost (c4)**	=	
Financing Cost					
		$ 0	Total purchases (c4)		_____
	x	9	% annual finance rate	x	_____
	÷	365	days/year	÷	_____
	x	100	days/turn	x	_____
	=	**$ 0**	**interest cost/turn (c5)**	=	
Total Purchase Costs Market #2 (c4+c5)		**$ 0**	**/year (c6)**	=	_____

- **Market #3**

Lamb Cost					
		0	# of head purchased		_____
	x	80	avg. weight/hd.	x	_____
	x	$1.05	/lbs	x	_____
	=	**$ 0**	**Total Cost (c7)**	=	

Financing Cost				Your Farm
	$0	Total purchases (c7)		_____
x	9	% annual finance rate	x	_____
÷	365	days/year	÷	_____
x	200	days/turn	x	_____
=	**$ 0**	**interest cost/turn (c8)**	=	

Total Purchase Costs Market #3 (c7+c8)	**$ 0**	**/year (c9)**	=	_____
Total Lamb Purchase Costs (c3+c6+c9)	**$854,499**	**Cost per year**	=	_____

4. Straw

Bedding

	180	days/year*		_____
	.5	lbs/hd/day		_____
x	$ 15	/tonne[2]	x	_____
x	2500	# of lambs	x	_____
	$ 145	**/year**	=	

*Straw is used for bedding during winter season only. Amount actually used will vary depending on weather conditions and time of year.

5. Veterinary, Medicine and Supplies

Lamb Medication

+	$ 0.30	/hd		_____
x	10,000	lambs/year	x	_____
	$ 3,000	**/year**	=	

[2] To convert $/tonne to $/lbs divide $/tonne by 2204.6
In this case the cost/lbs of forage is $15/t ÷ 2204.6 = $0.0068/lbs

					Your Farm
6.	**Maintenance, Repairs and Fuel**				
	Equipment, Buildings and Fence Repairs				
		$ 750	equipment/year		
	+	$ 2,000	building repair/year	+	
		$2,750	**total/yr (d1)**	=	
	Tractor and Skid Steer Fuel Costs				
		$ 2,500	tractor fuel consumption/year		
	+	$ 500	truck fuel consumption/year		
	=	**$ 3,000**	**/year (d2)**	=	
	Total Maintenance, Repairs and Fuel (d1+d2)	**$5,750**	**/year**	=	
7.	**Utilities**				
		$ 600	power		
	+	$ 400	telephone	+	
	=	**$ 1,000**	**Total**	=	
8.	**Manure Removal**				
		$ 1,200	**/year**		
9.	**Insurance**				
		$ 250	**Building and equip. insurance cost/year**		
10.	**Office Supplies and Accounting**				
		$500	**/year**		
11.	**Marketing Costs**				
		$ 1	/sheep marketed		
	x	9,600	sheep marketed*	x	
		$ 9,600	**/year**	=	

*Sheep marketed is equal to lambs purchased less lamb death loss

12. Property Tax **Your Farm**

$ 30	/year 10 ac @ $3/ac		_____

12. Financing Costs (operating costs excluding feeder lamb purchases)

Operating Loan

Operating interest is charged one third of the total operating costs.

	$168,315	subtotal operating costs		_____
x	.33		x	.33
x	9	% operating interest rate	x	_____
	$ 4,999	**/year**	=	

Non-Cash Fixed Costs

1. Depreciation

Straight-line method of depreciation is used:

$$Depreciation = \frac{\text{Purchase Price - Salvage Value}}{\text{Years of useful life}}$$

Buildings and Facilities **Your Farm**

	$47,500	value		_____
-	$2,375	5% salvage value	-	_____
÷	20	years of useful life	÷	_____
	$ 2,256	**/year (e1)**	=	

Machinery & Equipment

	$ 53,500	original value		_____
-	$5,350	10% salvage value	-	_____
÷	12	years of useful life	÷	_____
	$ 4,013	**/year (e2)**	=	

Total Depreciation (e1+e2)	**$ 6,269**	**/year**	=	_____

2. Investment Cost

Investment Cost on depreciable assets is calculated:

$$\frac{Original\ Value + Salvage\ Value}{2} \times Interest\ Rate$$

				Your Farm
Buildings				
	$47,500	beginning value		
+	$2,375	5% salvage value	+	
÷	2		÷	2
x	6	% investment interest rate	x	
	$ 1,496	**/year (f1)**	=	
Machinery and Equipment				
	$ 53,500	beginning value		
+	$ 5,350	10% salvage value	+	
÷	2		÷	2
x	6	% investment interest rate	x	
	$ 1,766	**/year (f2)**	=	

Investment cost on non-depreciable assets is calculated:

Investment cost = market value x interest rate

Land				
	$3,000	market value of land		
x	4	% investment interest rate	x	
	$ 120	**/year (f3)**	=	
Total Investment Cost (f1+f2+f3)	**$3,382**	**/year**	=	

3. Operator Management and Labour

	0.25	hours/lamb		
x	10,000	lambs	x	
x	$ 10	/hour	x	
	$ 25,000	**/year**	=	

Income

1. Finished Lamb Sales - Market #1 **Your Farm**

	9,600	lambs marketed*		_____
x	115	lbs. average weight	x	_____
x	$0.95	/lbs. sale price	x	_____
=	**$ 1,048,800**	**sales/year (g1)**	=	

* Lambs marketed equals number fed for market category less death loss

2. Finished lamb Sales - Market #2

	0	lambs marketed		_____
x	140	lbs. average weight	x	_____
x	$0.70	/lbs. sale price	x	_____
=	**$ 0**	**sales/year (g2)**	=	

3. Finished Lamb Sales - Market #3

	0	lambs marketed		_____
x	165	lbs. average weight	x	_____
x	$0.60	/lbs. sale price	x	_____
=	**$ 0**	**sales/year (g3)**	=	

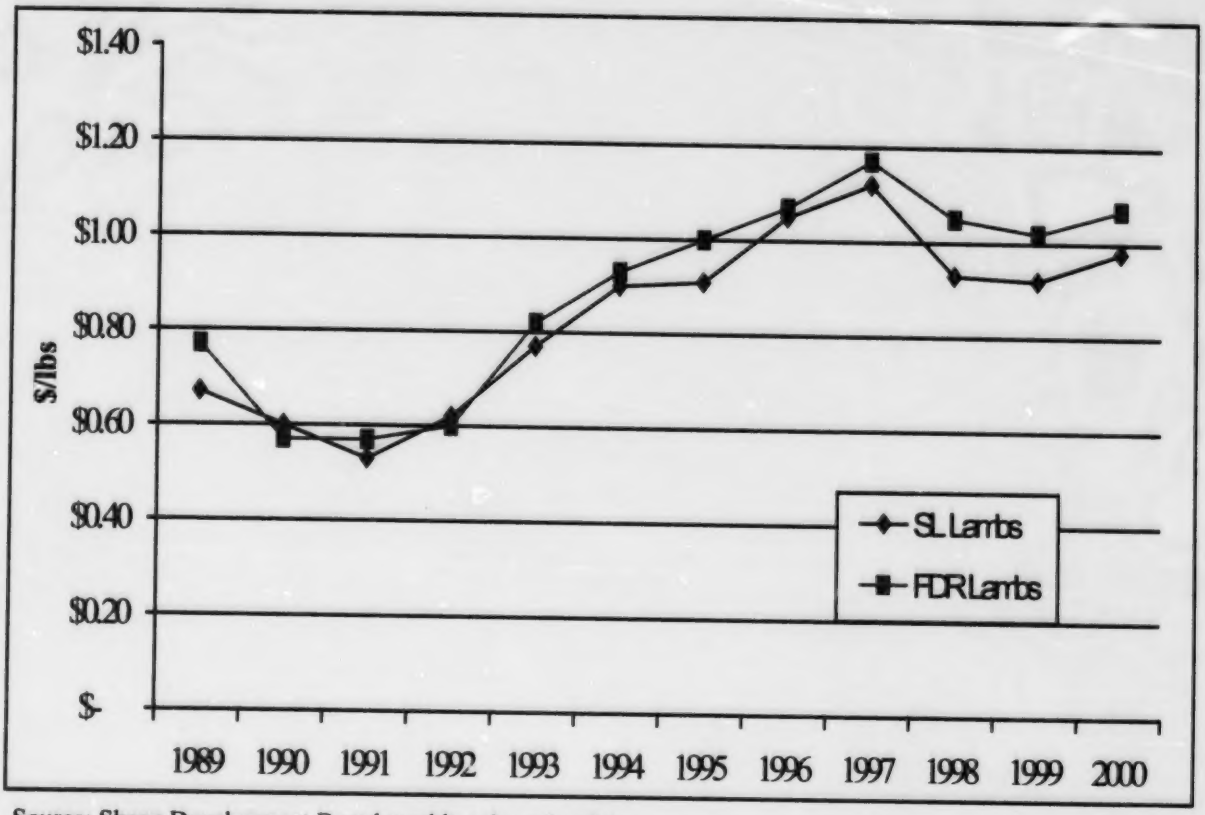
Total sheep sales/year **$ 1,048,800** **/year** = _____
(g1+g2+g3)

Summary of Income and Expenses for a Feedlot Enterprise

Estimates are based on a 2500 hd feedlot producing 4 inventory turns per year.

		$/Year	$/Lamb/Yr	Your Farm
Income				
1	Finished Lamb Sales-Market #1	$1,048,800	$104.88	
2	Finished Lamb Sales-Market #2	$ 0	$ 0.0	
3	Finished Lamb Sales-Market #3	$ 0	$0.0	
Total Income		**$1,048,800**	**$104.88**	
Operating Costs				
1.1	Lamb Feed Costs	$ 141,800	$14.18	
1.2	Salt and Mineral Mix	$ 5,040	$ 0.50	
Total Feed Cost		**$146,840**	**$14.68**	
2	Feeder lamb Purchases	$854,499	$85.45	
3	Straw	$ 145	$ 0.01	
4	Vet, Medicine and Supplies	$ 3,000	$ 0.30	
5	Maintenance and Repairs	$ 5,750	$ 0.58	
6	Utilities	$ 1,000	$ 0.10	
7	Manure Removal	$ 1,200	$ 0.12	
8	Insurance	$ 250	$ 0.03	
9	Office Supplies and Accounting	$ 500	$ 0.05	
10	Marketing Costs	$ 9,600	$ 0.96	
11	Property Tax	$ 30	$ 0.00	
Subtotal Operating Costs		**$1,022,814**	**$102.28**	
12	Operating Interest	$ 4,999	$ 0.50	
Total Operating Costs		**$1,027,813**	**$102.78**	
Non-Cash Fixed Costs				
1	Depreciation	$ 6,269	$ 0.63	
2	Investment Cost	$ 3,382	$ 0.34	
Total Fixed Costs		**$ 9,651**	**$ 0.97**	
Total Operating and Fixed Costs		**$1,037,464**	**$103.75**	
3	Operator Management & Labour	$25,000	$ 2.50	
Total Cost of Production		**$1,062,464**	**$ 106.25**	
Net Return		**-$ 13,664**	**-$ 1.37**	
Breakeven Lamb Price required to cover:			**$/lb**	
Operating Cost			$ 0.93	
Operating and Fixed Cost			$ 0.94	
Operating, Fixed Cost and Labour			$ 0.96	

Figure 1: Historical Saskatchewan Feeder and Slaughter* Lamb Prices 1989-2000



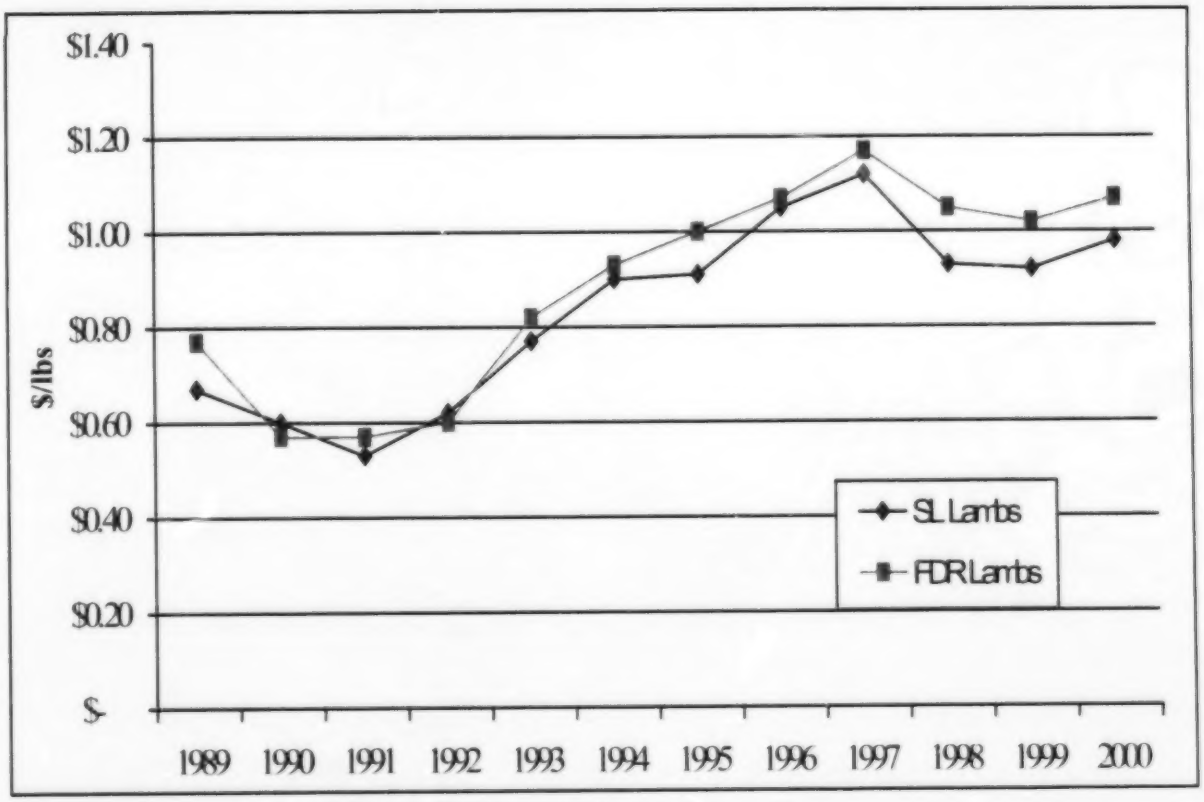
Source: Sheep Development Board weekly sales price data.
*Slaughter lamb prices are based on 115 lbs finish weight

Sensitivity Analysis: Effect of Productivity on Profitability

Table 2a: Breakeven Prices for a 300 Ewe Range Flock Enterprise (80 lbs feeder lambs)

	Breakeven Feeder Lamb Price Required to Cover:		
Weaning Rate Achieved	Operating Costs	Operating & Fixed Costs	All Costs
125%	$0.56/lbs	$0.99/lbs	$1.22/lbs
135%	$0.51/lbs	$0.91/lbs	$1.12/lbs
145%	$0.48/lbs	$0.84/lbs	$1.04/lbs

Figure 1: Historical Saskatchewan Feeder and Slaughter* Lamb Prices 1989-2000



Source: Sheep Development Board weekly sales price data.
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135%	$0.51/lbs	$0.91/lbs	$1.12/lbs
145%	$0.48/lbs	$0.84/lbs	$1.04/lbs

Table 2b: Breakeven Prices for a 100 Ewe Farm Flock Enterprise (115 lbs slaughter lambs)

	Breakeven Slaughter Lamb Price Required to Cover:		
Weaning Rate Achieved	**Operating Costs**	**Operating & Fixed Costs**	**All Costs**
145%	$0.64/lbs	$1.00/lbs	$1.14/lbs
155%	$0.61/lbs	$0.94/lbs	$1.07/lbs
165%	$0.58/lbs	$0.90/lbs	$1.01/lbs

Table 2c: Breakeven Prices for a 2500 hd. Feedlot Enterprise (115 lbs slaughter lambs)

	Breakeven Slaughter Lamb Price Required to Cover:		
Lamb Mortality Rate Achieved	**Operating Costs**	**Operating & Fixed Costs**	**All Costs**
3%	$0.92/lbs	$0.93/lbs	$0.95/lbs
4%	$0.93/lbs	$0.94/lbs	$0.96/lbs
7%	$0.96/lbs	$0.97/lbs	$0.99/lbs

Table 2b: Breakeven Prices for a 100 Ewe Farm Flock Enterprise (115 lbs slaughter lambs)

	Breakeven Slaughter Lamb Price Required to Cover:		
Weaning Rate Achieved	**Operating Costs**	**Operating & Fixed Costs**	**All Costs**
145%	$0.64/lbs	$1.00/lbs	$1.14/lbs
155%	**$0.61/lbs**	**$0.94/lbs**	**$1.07/lbs**
165%	$0.58/lbs	$0.90/lbs	$1.01/lbs

Table 2c: Breakeven Prices for a 2500 hd. Feedlot Enterprise (115 lbs slaughter lambs)

	Breakeven Slaughter Lamb Price Required to Cover:		
Lamb Mortality Rate Achieved	**Operating Costs**	**Operating & Fixed Costs**	**All Costs**
3%	$0.92/lbs	$0.93/lbs	$0.95/lbs
4%	**$0.93/lbs**	**$0.94/lbs**	**$0.96/lbs**
7%	$0.96/lbs	$0.97/lbs	$0.99/lbs

+9